

Appln No. 09/483,315

Amtd date July 29, 2004

Reply to Office action of January 29, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 75. (Canceled)

76. (Currently Amended) A mobile access unit for use in a localized communications system, comprising:

a video input configured to receive real-time video information [~~formatted in accordance with a first video format~~];

a video output configured to provide real-time video information [~~formatted in accordance with a second video format~~];

a codec connected to the video input and video output that is configured to [~~convert~~] encode real-time video information received from the video input [~~encoded in the first video format to a third video format and~~], [~~to convert~~] decode encoded real-time video information and provide the decoded real-time video information to the video output [~~encoded in the third video format into the second video format~~]; and

a transceiver, comprising:

a transmitter connected to the codec that is configured to transmit a data stream generated by the codec over an upstream wireless communication link; and

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a receiver connected to the codec that is configured to receive a data stream transmitted over a downstream wireless communication link.

77. (Currently Amended) The mobile access unit of claim 76, wherein:

the codec is configured to multiplex encoded real-time video [~~encoded in the third video format~~] with other data to generate the data stream provided by the codec to the transmitter; and

the codec is configured to demultiplex encoded real-time video [~~encoded in the third video format~~] from the data stream provided to the codec by the receiver.

78. (Currently Amended) The mobile access unit of claim 76, further comprising a heads up display [~~is~~] connected to the video output and configured to receive real-time video [~~formatted in accordance with the second video format~~].

79. (Currently Amended) The mobile access unit of claim 76, further comprising a video camera [~~is~~] connected to the video input and configured to provide a real-time video output [~~formatted in accordance with the first video format~~].

80. (Currently Amended) The mobile access unit of claim 76, further comprising:

an audio input configured to receive real-time audio information [~~formatted in accordance with a first audio format~~];

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an audio output configured to provide real-time audio information [~~formatted in accordance with a second audio format~~];

wherein the codec is connected to the audio input and the audio output;

wherein the codec is configured to [~~convert~~] encode real-time audio information received from the audio input [~~encoded in a first audio format to a third audio format and~~], [~~to~~] decode encoded [~~convert~~] real-time audio [~~encoded in the third audio format into the second audio format~~] and provide the decoded real-time audio to the audio output;

wherein the codec is configured to multiplex encoded real-time video [~~encoded in the third video format~~] with at least the real-time audio encoded by the codec [~~formatted in the third audio format~~] to generate the data stream that is provided to the transmitter; and

wherein the codec is configured to demultiplex encoded real-time video [~~encoded in the third video format~~] from the data stream provided by the receiver that also includes at least encoded real-time audio [~~encoded in a third audio format~~].

81. (Currently Amended) The mobile access unit of claim 80, further comprising a headphone set connected to the audio output and configured to receive real-time audio [~~formatted in accordance with the second audio format~~].

82. (Currently Amended) The mobile access unit of claim 80, further comprising a microphone connected to the audio input

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and configured to provide a real-time video output [~~formatted in accordance with the first audio format~~].

83. (Currently Amended) The mobile access unit of claim 76, further comprising:

a user interface input configured to receive information [~~provided in a first user interface format~~];

wherein the codec is connected to the user interface input and is configured to encode [~~convert~~] the user interface information [~~encoded in the first user interface format to a second user interface format~~];

wherein the codec is configured to multiplex encoded [~~the~~] real-time video [~~encoded in the third video format~~] with at least the encoded user interface information [~~encoded in the second user interface format~~] to form a data stream that is provided to the transmitter; and

wherein the encoded user interface information [~~encoded in the second user interface format~~] is capable of commanding a remote device.

84. (Previously Presented) The mobile access unit of claim 76, wherein the codec is implemented using at least one electronic device.

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85. (Currently Amended) A communication system,  
comprising:

at least one mobile access unit configured to communicate  
in a localized area with a base station, the mobile access unit  
comprising:

a video input configured to receive real-time video  
information ~~[formatted in accordance with a first video format];~~

a video output configured to receive real-time video  
information ~~[formatted in accordance with a second video  
format];~~

a mobile access unit codec connected to the video  
input and the video output that is configured to ~~[convert]~~  
encode real-time video information received from the video input  
~~[encoded in the first video format to a third video format and],~~  
~~[to convert]~~ decode encoded real-time video information ~~[encoded~~  
~~in the third video format into a second video format]~~ and  
provide the decoded real-time video information to the video  
output; and

a transceiver, comprising:

a mobile access unit transmitter connected to the  
mobile access unit codec that is configured to transmit a data  
stream generated by the codec over an upstream wireless  
communication link; and

a mobile access unit receiver connected to the  
mobile access unit codec that is configured to receive a data  
stream transmitted over a downstream wireless communication  
link; and

a fixed base station, comprising:

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memory containing a registry of mobile access units within the localized area;

a transceiver, comprising:

a base station transmitter that is configured to transmit a data stream generated over the downstream wireless communication link; and

a base station receiver configured to receive a data stream transmitted over the upstream wireless communication link.

86. (Currently Amended) The communications system of claim 85, further comprising:

a base station router connected to the base station transceiver;

wherein the mobile access unit codec:

is configured to multiplex encoded real-time video [~~encoded in the third video format~~] with other data to generate the data stream provided to the mobile access unit transmitter; and

is configured to demultiplex encoded real-time video [~~encoded in the third video format~~] from the data stream provided to the mobile access unit codec by the mobile access unit receiver; and

wherein the base station router:

is configured to multiplex encoded real-time video [~~encoded in the third video format~~] with other data to generate the data stream provided by the base station router to the base station transmitter; and

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is configured to demultiplex encoded real-time video [~~encoded in the third video format~~] from the data stream provided to the base station router by the base station receiver.

87. (Currently Amended) The communication system of claim 86, further comprising:

a network bridge connected to the base station router;  
and

wherein the base station router is configured to receive encoded real-time video [~~encoded in the third video format~~] from the base station receiver and route the encoded real-time video [~~encoded in the third video format~~] to the base station transmitter or to the network bridge.

88. (Currently Amended) The communication system of claim 87, wherein:

the mobile access units further comprise:

an audio input configured to receive real-time audio information [~~formatted in accordance with a first audio format~~];

wherein the mobile access unit codec is connected to the audio input;

wherein the mobile access unit codec is configured to [~~convert~~]encode real-time audio information [~~encoded in a first audio format to a third audio format~~];

wherein the mobile access unit codec is configured to multiplex encoded real-time video [~~encoded in the third video format~~] with at least the encoded real-time audio [~~formatted in~~]

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~~the third audio format]~~ to generate the data stream that is provided to the transmitter; and

wherein the fixed base station router is configured to demultiplex at least encoded real-time video [~~eneeded in the third audio format]~~ and real-time audio [~~eneeded in the third audio format]~~ from the data stream received from the base station receiver; and

wherein the base station router is configured to route encoded real-time audio [~~eneeded in the third audio format]~~ to the base station transmitter or to the network bridge.

89. (Currently Amended) The communication system of claim 88, wherein the router is configured to route encoded real-time video [~~eneeded in the third video format]~~ independent of the encoded real-time audio [~~eneeded in the third audio format]~~.

90. (Currently Amended) The communication system of claim 88, further comprising:

a device connected to the network bridge via a network;

a microphone connected to the audio input of one of the mobile access units;

wherein the microphone is configured to generate real-time audio including voice commands [~~in the first audio format]~~;

wherein the device is configured to receive encoded real-time audio information [~~eneeded in the third audio format]~~ from the fixed base station via the network;

wherein the device is configured to identify voice commands [~~in real time audio eneeded in the third audio format]~~; and



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wherein the device is configured to respond to [the]  
identified voice commands.

91. (Currently Amended) The communication system of claim  
90, wherein:

the base station router is configured to route real-time  
audio encoded in the third audio format to the ~~[to the]~~ base  
station transmitter or to the network bridge; and

encoded real-time audio ~~[eneeded in the third user  
interface format]~~ that is received by the network bridge is sent  
to at least one device via the network.

92. (Currently Amended) The communication system of claim  
86, wherein:

the mobile access units further comprises:

a[n] user interface input for receiving user input  
~~[eneeded in a first user input format];~~

wherein the mobile access unit codec is connected to  
the user interface input and is configured to ~~[convert]~~ encode  
the user interface information received from the user interface  
input ~~[eneeded in the first user interface format to a second  
user interface format];~~

wherein the mobile access codec is configured to  
multiplex the encoded real-time video ~~[eneeded in the third  
video format]~~ with at least the encoded user interface  
information ~~[eneeded in the second user interface format]~~ to  
form a data stream that is provided to the mobile access unit  
transmitter.

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93. (Currently Amended) The communication system of claim 92, wherein the base station router is configured to independently route encoded real-time video information [~~encoded in the third video format~~] and encoded user interface information [~~encoded in the second user interface information format~~].

94. (Currently Amended) The communication system of claim 92, further comprising:

a device connected to the network bridge via a network;

wherein the fixed base station router is configured to demultiplex encoded user interface information [~~encoded in the third user interface format~~] from the data stream provided to the base station router by the base station transceiver;

wherein the router is configured to route encoded user interface information [~~encoded in the third user interface format~~] received from the base station router to the base station transmitter or the network bridge;

wherein the device is configured to receive encoded user interface information [~~encoded in the third user interface format~~] from the fixed base station via the network; and

wherein the device is configured to respond to encoded user interface information [~~encoded in the third user interface format~~].

95. (Currently Amended) The communication system of claim 86, wherein:

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the base station router is configured to multiplex the encoded real-time video [~~encoded in the third format~~] that is received by the base station router in a data stream generated by the first mobile access unit into a data stream that is provided to the base station transmitter; and

the base station transmitter is configured to transmit the data stream generated by the base station codec that contains at least the encoded real-time video [~~encoded in the third format~~] from the data stream generated by the first mobile access unit to a second [~~third of the~~] mobile access unit[s].